

# Reference "N"

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Application No. 07-182646, filed July 19, 1995; Inventor: Shindo YASUTOSHI;  
Assignee: OKI Electric Ind. Co. Ltd.

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## AUTOMATIC TRANSACTION MACHINE

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(54) [Title of Invention] Title of Invention:

Automatic Transaction Machine

(57) [Abstract]

[Purpose] The purpose of this invention is to prevent the hassle and loss of time involved in going to a window reservation terminal in connection with a malfunction or event at an automated transaction machine and offer a smooth response after the occurrence of a malfunction or an event.

[Constitution] In the automatic transaction machine 2 that carries out transactions based on customer operations, as it is connecting to the window reservation terminal 3, when in the course of the transaction operation a malfunction or event occurs in the automatic transaction machine 2 to which it is impossible to respond, a window response sequence number is assigned by the connected window reservation terminal 3 and the customer us issued a printout of this sequence number.

[Claims]

[Claim 1] In an automatic transaction machine that carries out transactions based on customer operations, an automatic transaction machine characterized in that

it is connected to the window reservation terminal,

-when in the course of the transaction operation a malfunction or event occurs in the automatic transaction machine to which it is impossible to respond, a window response sequence number is assigned by the connected window reservation terminal and the customer us issued a printout of this sequence number.

[Claim 2] An automatic transaction machine under Claim 1 wherein a malfunction or event code that specifies the malfunction or event that occurred is included on the printout along with the sequence number.

[Claim 3] An automatic transaction machine under Claim 1 wherein a malfunction or event code that specifies the malfunction or event that occurred is forwarded to said window reservation terminal.

[Detailed Explanation of Invention]

[Field of Industrial Application] This invention pertains to an automatic transaction machine that carries out transactions based on customer operations, such as financial transaction machine, plane ticket machine, public facility reservation terminal, etc.

[Prior Art] In these automatic transaction machines of Prior Art whenever a malfunction or event occurred in the machine, to which it unable to respond, a response at the window was urged by the display, etc.

[Problems to be Solved by Invention] However, based on Prior Art of the above constitution, when a response at the window was required in the middle of a transaction by the automatic transaction machine, the customer had to go all the way to the window and get a reservation card from the window reservation terminal, which is a problem because it involves a lot of hassle. Moreover, between the time that a malfunction or event occurred and the time when said reservation card was received, other individuals would interpose and although a customer's transaction came first, the response at the window came later, which was irrational, and thus posed a problem. Moreover, at the window, the customer had to explain the content generated by the automatic transaction machine, which was a hassle, and sometimes could not be done. In addition, this involved the problem of time wasted for response at the window. This invention focuses the above problems and its goals are to achieve a design in which, when a malfunction or an event occurs in an automatic transaction machine, the sequence of the response at the window is ensured at the same time, preventing the hassle and time loss involved in going to the window reservation terminal with regard to a malfunction or an event, and offering a smooth response after a malfunction or an event occurs.

[Means of Solving the Problem] In order to achieve the above goal, in this invention the automatic transaction machine assigns a response sequence number at the window in real time when a malfunction or an event occurs. The window reservation terminal that is used to reserve a sequence number during the response at the window is connected to the automatic transaction device, and when a malfunction or an event occurs in the middle of an transaction by the automatic transaction machine to which a response is impossible, a window response sequence number is assigned by the window reservation terminal and given to the customer as an output, which is a distinguishing feature. At this time, a malfunction or event code that specifies the malfunction or event that occurred is included on the printout along with said sequence number and can be forwarded to the window reservation terminal.

[Operation] When a malfunction or event that is impossible to respond to occurs in the middle of a transaction operation, in the automatic transaction machine based on the above-mentioned design, the connected window reservation terminal automatically assigns a window response sequence number to, and this sequence number can be output to the customer on a receipt, etc. At this time, the code that specifies the malfunction or event that occurred is printed out along with said sequence number and forwarded to said window reservation terminal; then the window clerk can determine the contents of the malfunction or event from the malfunction or event code, without the customer explaining anything.

[Embodiment 1] Below we will explain an embodiment, following the Figure. Fig. 1 is a block chart that shows an embodiment of this invention, while Fig. 2 is an explanatory Figure of the essential part of this invention. In the Figure, 1 is the host computer, 2 is the automatic transaction machine, and 3 is the window reservation terminal. These host computer 1, automatic transaction machine 2, and window reservation terminal 3 are connected online, and the automatic transaction machine 2 and window reservation

terminal 3 can refer to each other's information via the host computer 1. In the automatic transaction machine 2, 4 is the receipt printing unit, 5 is the receipt release unit, 6 is the customer operation unit, and 7 is the display unit. 8 is the memory A that stores in advance as its memory contents the malfunction and event code table 9 that identifies malfunctions and events that occur. 10 is the memory B that stores temporarily the window reservation number 11 and the selected malfunction or event code 12 that are assigned in the case in question by the window reservation terminal 3. In the window reservation terminal 3, 14 is the reservation card printing unit, 15 is the reservation card release slot, 16 is the clerk operation unit, and 17 is the display unit. 18 is the memory C that mutually connects and stores the window reservation sequence number 19 and the individual data 20 corresponding thereto, for example, it uses a table, like the one shown in Fig. 2. In the individual data 20 about the window reservation sequence number 19 that was assigned online, the automatic transaction machine 2 sets the malfunction or event code 12 that was forwarded from the automatic transaction machine 2 to [14] and [21] in Fig. 2, whereas the customer sets the code [00], which means the absence of a malfunction or event code, in the individual data 20 about the window reservation sequence number 19 that was assigned by the window reservation terminal 3. 21 is the file B that selectively stores the memory contents of the memory C. Fig. 3 is the operation flow chart that shows the operation of this embodiment. Below, we will explain the operation of this embodiment following the same flow chart. First, when in the automatic transaction machine 2 a malfunction or another event occurs to which it is impossible to respond, this fact is displayed in the display unit 7, and the customer is urged to choose whether he wants to go to window reservation or not (S1 – S3). Here, in the event that the customer chooses not to go to window reservation, conventional processing is conducted, i.e. the transaction is canceled, etc (S4). If in S3 the customer chooses window reservation, the automatic transaction machine selects the malfunction or event code 12 for this malfunction or another event from the code table 9 of the memory 8 and sets it in memory B10 (S5); moreover, this malfunction or event code 12 is forwarded to the window reservation terminal 3 (S6). The memory reservation terminal 3 sets this malfunction or event code 12 forwarded from the automatic transaction machine 2 in the individual data 20 that correspond to the last number of the window reservation sequence numbers 19 of the table in the memory C 18 (S7). This last sequence number is forwarded to the automatic transaction machine 2 (S8). The automatic transaction machine 2 sets the sequence number forwarded from the window reservation terminal 3 to the memory B10 as the window reservation sequence number 11 of the case in question (S9). Then the window reservation sequence number 11 of the case in question is printed by the receipt printing unit 4 (S10), and released through the receipt release slot 5 (S11). The malfunction or event code 12 that is set in the memory B10 is placed in file A13 along with the data specifying the customer, date and time of the transaction in question, etc., and the window reservation sequence number 11 of the case in question, as needed (S12). Doing so, makes it possible to check in advance for the trends for malfunctions, such as mechanical abnormalities etc., readily arising in the automatic transaction machine 2 and be aware of them prior to maintenance. The customer takes said receipt to the window and receives window response based on the window reservation sequence number 11 of the case in question printed on said receipt. Below is an example of the actions of the window reservation terminal 3. First, the

window reservation terminal 3 displays the window reservation number 19 that is currently being handled by means of the display unit 17, so the customer is informed. When the window reservation terminal 3 is advised by the clerk operation unit 16 that the response is complete, this window reservation number 19 is erased from the memory C18 and the next window reservation number 19 is displayed by the display part 17. Moreover, in the event that a message of response cancellation is dispatched by the clerk operation unit 16 due to customer's failure to appear, yet the malfunction or event code is present in the individual data 20 about the window reservation number 19, the window reservation number 19 and the individual data 20 are stored in a mutually connected way in the file 21, and these data are erased from the memory C18 (S13). By doing so, even when the customer is not on site when the window reservation terminal informs him of the arrival of the sequence number, the customer can then later find out what the malfunction was by checking the file B21 as long as the customer still has the receipt.

#### [Effect of Invention]

As explained in detail above, based on this invention, in an automatic transaction machine that carries out transactions based on customer operations, when a malfunction or event to which it is impossible to respond occurs in an automatic transaction machine that is connected to window reservation terminal, the connected window reservation terminal assigns a window response sequence number, and the customer is given this sequence number as a printout; therefore when a malfunction or an event occurs, the automatic transaction machine can be assigned a sequence number of the response at the window in real time. Thus, at the same time that a malfunction or an event occurs in the automatic transaction machine, it is possible to ensure a sequence number of the response at the window, thus achieving the effect of preventing the hassle and loss of time involved in going to the window reservation terminal in connection with a malfunction or event that occurs in the automatic transaction machine and offering a smooth response following the malfunction or event. When at this time the code that identifies the malfunction or event that occurred and with the said sequence number are given to the customer as a printout and are forwarded to the said window reservation terminal, the window clerk can identify the content of the malfunction or event in the absence of the customer, thus achieving the effect of the customer not having to explain the content of what happened in the automatic transaction machine, and the response being smoother.

#### [Brief Explanation of Figures]

[Fig. 1] is a block diagram that shows an embodiment of this invention.

[Fig. 2] explains the essential part of the window reservation terminal that fits this embodiment.

[Fig. 3] is a flow chart that shows the operation of this embodiment.

#### [Key to Symbols]

1 – host computer

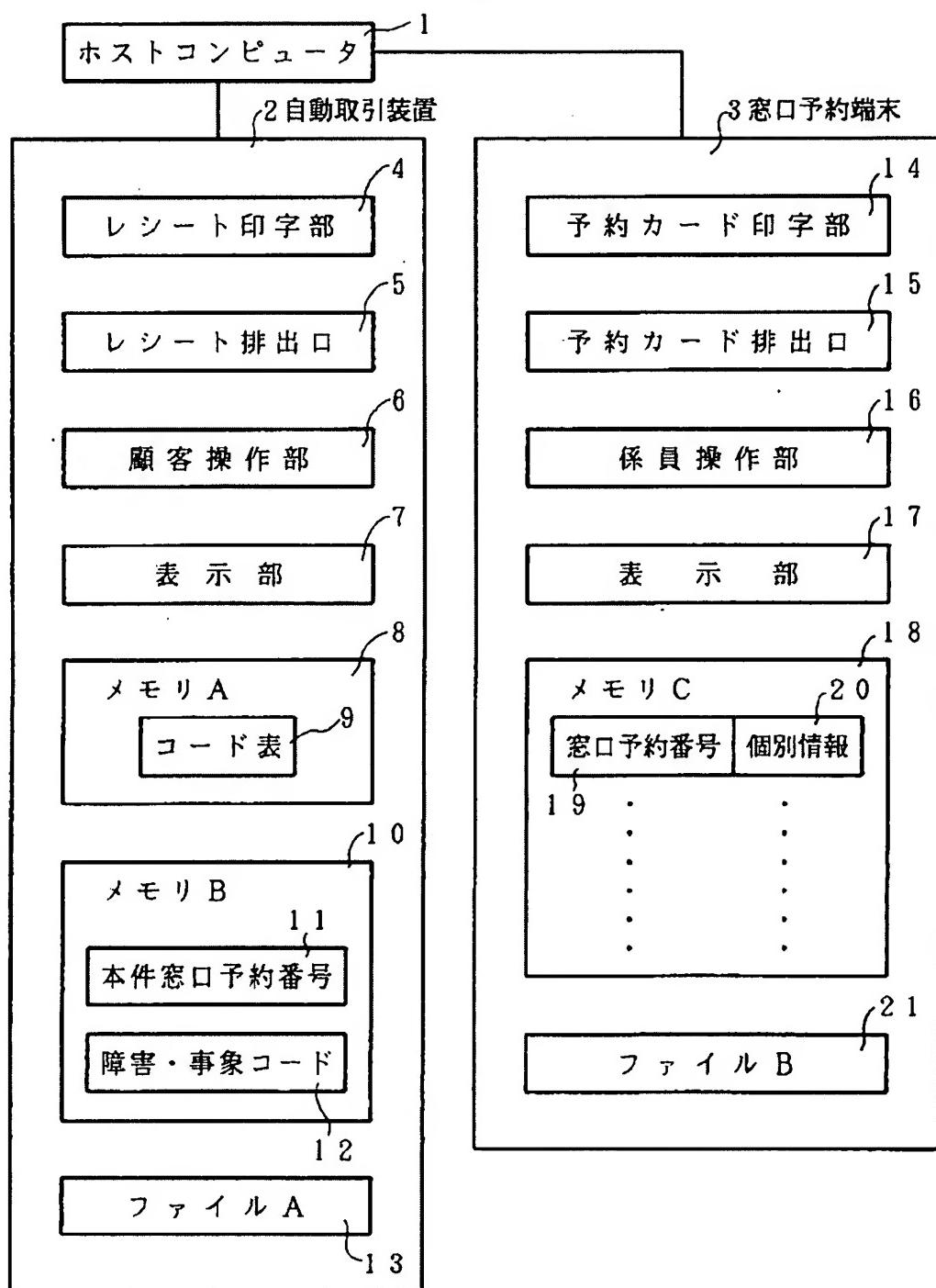
2 – automatic transaction machine

3 – window reservation terminal

4 – receipt printing unit

5 - receipt release slot  
6 – customer operation unit  
7 – display unit  
8 – memory A  
9 – code table  
10 – memory B  
11 – window reservation number in the case in question  
12 - malfunction or event code  
13 – file A  
14 – reservation card printing unit  
15 – reservation card release slot  
16 clerk operation unit  
17 – display unit  
18 – memory C  
19 – window reservation number  
20 – individual data  
21 - file B

Fig. 1



本発明の一実施例の動作を示すフローチャート

A block diagram that shows an embodiment of this invention<sup>1</sup>.

Fig. 2

窓口予約番号	個別情報
1	00
2	00
3	14
4	21

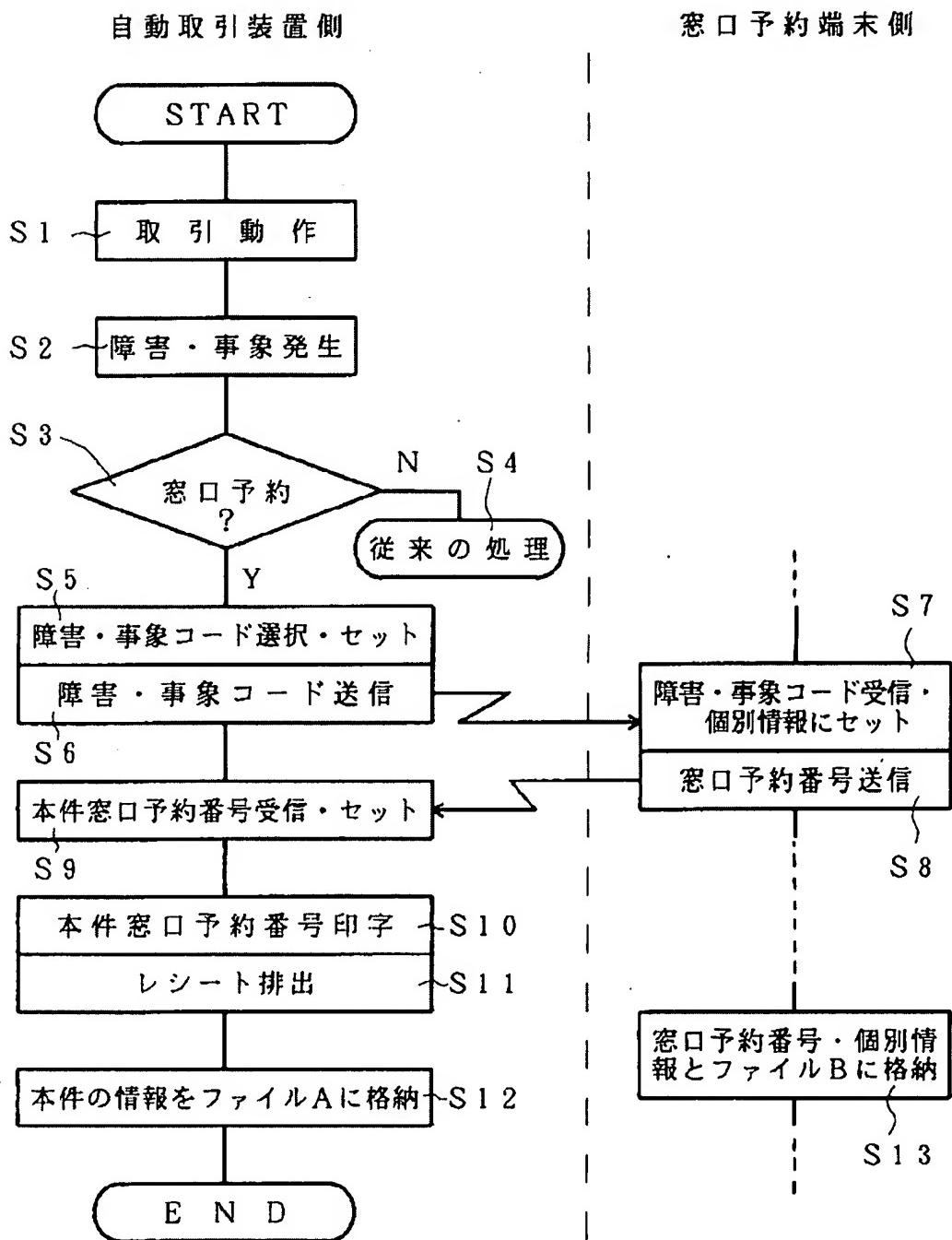
本発明の一実施例に適用した窓口予約端末の要部説明図

Figure that explains the essential part of the window reservation terminal that fits this embodiment.

Fig. 3

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<sup>1</sup> Sic! – translator's note



本発明の一実施例の動作フローチャート  
A flow chart that shows the operation of this embodiment.

[Left] Automatic transaction machine side

[Right] Window reservation terminal side

S1 – Transaction operation

S2 – A malfunction or event occurs

S3 – Window reservation?

S4 – Conventional processing

S5 – A malfunction or event code is selected and set

S6 – A malfunction or event code is transmitted

S7 – A malfunction or event code is received and set in individual data

S8 – The window reservation number is transmitted

S9 – The window reservation number in the case in question is received and set

S10 – The window reservation number in the case in question is printed out

S11 – Receipt release

S12 – The data of the case in question is stored in file A

S13 – The window reservation number and individual information are stored in file B

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Translations Branch

Irina Knizhnik

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